LOUISVILLE MEDICAL NEWS.

"NEC TENUI PENNA."

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ON THE USE OF QUININE.

At the time when quinine was added to the list of our medicines calomel was at the height of its renown as a remedial agent. Johnson and Armstrong had made scruple doses of the mercurial popular in England, and a little while later Cooke, in our country, prescribed it by the ounce, giving as much as a pound in the course of a few days to some of his cholera patients. Calomel is now seldom given, and then in small doses, while quinine has come to be administered by the scruple and the drachm.

The active salts of Peruvian bark were separated by the French chemists in 1820, soon after which they were in the hands of European physicians, and no doubt in a very short time they found their way to America; but when they were introduced or by whom is not certainly known. A writer in an instructive Sanitary Report on Nashville, just published, states that quinine was first used by the physicians of that city in 1829 or 1830; but he is evidently mistaken by several years, for a friend from Tennessee who graduated in 1825 informs us that in the list of his armamentaria that year was a bottle of sulphate of quinine for which he paid eleven dollars. Dr. Felix Robertson, the first native boy of Nashville, has the credit of having employed it first in his practice in that city; and it is probable that this was as early as 1824, four years after its discovery. The dose at that day was one grain, which Magendie and others taught was equivalent to a drachm of bark. The dose was repeated eight times during the day, and by this method our fathers flattered themselves that they were able to break up the morbid chain constituting intermittent fever.

The question is an interesting one for patients as well as practitioners, why the immense increase of dose in our times? Can it be that the physicians who trusted to the Liliputian doses were deceived about their effect? Hardly, we should think. The cures they reported were doubtless realities. Are we to conclude then that the precious alkaloid has been tampered with, and that we no longer get it in its purity? We can not believe any such thing. The only remaining supposition is that we are giving the article in doses unnecessarily large; that we are wasting it as our fathers wasted calomel; and such we know is the opinion of not a few practitioners. Many physicians, especially of the ancient regime, adhere to the moderate practice of a former age, and administer quinine in doses of two grains, with the effect, as they aver, of curing their patients.

For many years after quinine had come into general use as a specific in intermittents, it was not suspected that it was equally available in fevers of the remittent form. Patients consequently died in great numbers who would have been saved in our day. There being no intermission in the fever, the alkaloid was deemed inadmissible. Day after day the paroxysm recurred, and no efficient measures were employed to avert it. The distinct remission and the recurrence of chills at regular periods were not regarded as indications for the use of the anti-periodic, and after the paroxysms had returned for a succession of days the patient was seized with congestive symptoms, which in too many instances proved to be the precursors of death.

The improvement of our practice in this respect, the conversion of remittents into intermittents, and the early administration of quinine in them, must be looked upon as one of the most fruitful revolutions in medicine.

It is a fear shared by many that the profuse employment of quinine may cause an increasing scarcity of the drug which will at last put it out of the reach of all but the opulent. Chemistry, let us hope, will interpose to save the world from such a calamity. There is reason to expect that among the future triumphs of that progressive art will be the discovery of a process for combining the elements of sulphate of quinine. The expectation is justified by what chemistry has already done in forming organic compounds.

DR. TONER'S ADDRESS.

Dr. Toner's address on Medical Biography, delivered before the International Medical Congress at Philadelphia a year ago, has been issued in pamphlet form, and a copy is before us. Never before, we believe, was so much matter compressed within the same limits. Dr. Toner has powers of condensation equal to his industry, and this is of a quality which would make him the prince of lexicographers should his labors ever take that direction. But with all his faithful painstaking the laborious author has fallen into some errors, we fear a great many, in his historical sketches. Of Dr. J. B. Flint, for instance, he says "he published in 1868 a work on Practice." Dr. Flint died in 1865, and, though a fine writer, never published a work on any subject. Further, Dr. Toner states, "Dr. Flint was the first surgeon in Kentucky who administered ether to produce insensibility for surgical operations." To Dr. Gross, at the time Professor of Surgery in the University of Louisville, belongs that honor. Dr. Flint, like many other cautious surgeons, was at first disinclined to the use of anæsthetics. One of his medical friends who was supposed to speak his sentiments, writing for a paper of this city, declared not long after their discovery that "etherization was on its last legs." Nor is the statement correct that "Dr. Flint held the chair of Surgery in the Louisville Medical College from 1837 to 1849." He was elected to that chair in the Medical Institute of Louisville in 1837, and vacated it in 1840, after which he became Professor of Surgery in the Kentucky School of Medicine. In 1856 he was elected to the same chair in the University of Louisville. But Louisville has had no more scholarly or skillful surgeon than Dr. Flint.

Dr. Toner speaks of Dr. William H. Richardson, the early Professor of Obstetrics in Transylvania University, as "a physician of high culture." Dr. Richardson succeeded to a great reputation in his profession in spite of a want of culture. So far from being "a man of superior education," he was flagrantly defective in mental training. He was a man of excellent capacity, of a fine elocution, pleasing in manner and appearance, able as a practitioner, and popular as a teacher, but with no pretensions at all to education.

Dr. Toner's address does honor to his heart no less than to his judgment and industry. He scans the actions of his fellowmen with a kindly eye, and will not see defects in character if he can possibly turn away from them. "In looking over the available records of the lives of the medical men who have labored in the several states during the century," he says: "I am struck with the evidence of the high average professional ability and wonderful fidelity with which they have discharged their duties. The testimony, too, is ample as to the high esteem in which the vast majority of medical men have been held by the communities in which they have resided." This is high praise, but as just as it is cordial.

THE North Carolina Medical Journal begins life again January 1, 1878.

Original.

INTUSSUSCEPTION OF THE BOWEL.

BY W. T. CHANDLER, M. D.

Intestinal invagination or volvulus, it is well known, is a pathological casualty almost universally fatal. The intussusception of one portion of intestine into another portion, when unreduced, leads to sphacelus of the invaginated gut, and although nature will make an effort, by agglutinating the peritoneal surfaces at the point of constriction, to preserve the continuity of the alimentary track, yet this is seldom complete before the accumulating evils of the malady result in the death of the unfortunate victim.

Taking nature as their guide, some practitioners have advised an expectant plan of treatment in these cases, and by giving opium in quantities sufficient to control peristaltic action they think it possible to circumscribe the resulting peritonitis and limit the morbid action to a conservative inflammation of the intestinal peritoneum. In these cases, when recovery takes place, the invaginated portion of intestine sloughs and is discharged with the fecal matter, but the continuity of the intestinal structure is preserved complete by the adhesion of the peritoneal surfaces at the point of sphacelation. Authentic cases have been reported where from one to six feet of intestine have sloughed and been discharged from the patient, the cases still resulting in recovery. The vast majority, however, succumb to general peritonitis extending by continuity of structure, or as the result of a giving way of the intestine and the passage of their contents into the peritoneal cavity before the adhesions are firm enough to hold the structures intact.

There are other practitioners who, however irrational it may seem in theory or however antagonistic to recognized authorities, rely upon active purgation in intussusception, hoping by this measure to disinvaginate the gut by a reversed hyperperistaltic action, and thus secure the normal continuity of the canal without a sacrifice of intestinal structure.

A case in point was narrated to me by a professional friend, where his patient was relieved of a seeming invagination by large doses of croton oil. The vermicular motion of the intestines could be felt through the abdominal parietis to move down to the point of obstruction, then stop and reverse its action to the stomach, when vomiting of stercoraceous matter would ensue. After forty-eight hours of agonizing pain, during which time repeated doses of croton oil were administered, the patient was relieved; relief was preceded, however, by an audible gurgling. The patient said he felt as if something had given way internally, and soon afterward the bowels moved. A little opium was given to control hypercatharsis, and the patient made a good recovery.

Such cases are not frequent; but it is easy to comprehend that the use of drastic or even of mild cathartics, instead of relieving would most generally increase the invagination and thus aggravate the trouble. And although a fortuitous circumstance should occasionally render such a method of treatment successful, yet from the very nature of such treatment it must be obvious that unless relief be speedily procured we inevitably injure our patient and render other measures that are safer and more efficient in practice less available.

To my mind even gastrotomy would be more rational and I think conduce to better results than purgation in any style. But the plan of treatment I conceive to be best, and for which this paper was undertaken, and which I propose to illustrate by a case, is by hydraulic or pneumatic pressure applied per rectum and exercised gently but persistently upon the invaginated intestine until forced back into its proper place. I am aware that this is a practice as old as Hippocrates himself; but that it is generally used in a manner sufficiently heroic to insure success is to my mind very doubtful. To be of proper avail pressure must be exer-

cised gently, very gradually increasing the force until the obstruction is overcome.

Rupture of the intestine with extravasation of its contents into the peritoneal cavity, peritonitis and death have resulted in more than one case by the alternate injection into the lower bowel of solutions of the alkaline carbonates with citric or tartaric acid, by the sudden production of an indefinite quantity of carbonic acid gas and a rapid and uncontrollable distention of the gut. Such a procedure is dangerous in the extreme and can not be too highly condemned, though good results may have occasionally accrued from its use. When used at all, this measure should be used with extreme caution, ever mindful of the danger of intestinal rupture. The gradual and even distention of the lower bowel, however, with either water or air, in such a manner as to slowly distend the gut, thus giving the invaginated mass time to recede before the pressure, is in my judgment the safest and most efficient of all treatments.

A young man while straining himself in athletic feats was suddenly attacked with a severe pain in the abdomen, obstinate constipation, followed by nausea and vomiting, localized tenderness a little below and to the right of the umbilicus. In this condition he was seen on the subsequent day by his family physician, who, suspecting invagination, administered croton oil in doses of four drops morning and night for three days without other result than to aggravate the pain, extend the abdominal tenderness, and augment the nausea and vomiting.

At this time I first saw the patient. No action on bowels for forty-eight hours; vomiting every few minutes; abdomen tympanitic and very tender; features pinched; extremities cold, and cutaneous surface bathed in perspiration. Patient had taken twelve drops of croton oil, two ounces of castor oil, and two or three small enema without effect. I ordered one half grain of morphine every three hours until quiet; also turpentine stupes to abdomen. Saw the patient twelve hours later; found him easier, but vomiting every half hour or so. The matter ejected was of a fecal character. There was no discharge from the bowels except a little bloody mucus.

I now attempted to distend the lower bowel with warm water, using a Davidson's syringe as a force-pump; injected a half gallon of water, but without effect. Injection desisted from on account of the severe pain produced by the effort. Ordered opium and camphor *per os*, and left the patient for twelve hours, at which time his condition seemed unchanged. His parents had once more tried to distend his bowel and force back the invaginated portion during my absence.

I now renewed the injection, and after forcing about a gallon of water into the lower bowel the patient said he felt as if something had given way internally. Soon afterward the water used was discharged, and with it a small quantity of fecal matter. Ordered more opium, and twelve hours later a full dose of castor oil, which acted thoroughly. From this time the patient did well and finally made a good recovery.

This case, sudden in its accession, with nausea and vomiting of stercoraceous matter, constipation, meteorism, localized tenderness, small discharge of sanious mucus, together with the entire history considered, resulting from a strain and finally relieved by distention after the failure of drastic cathartics, would seem to be a clear case of intussusception.

The number of efforts as well as the quantity of water employed are all important factors in this case, no less than the length of the time supervening between the inception of the trouble and its final relief.

This case would seem to teach us to persevere in our efforts to force the invaginated portion in situ even after some days of delay; but in our zeal we should never lose sight of the fact that the intussuscepted portion of gut is in a state of partial strangulation, and that sphacelus is a speedy concomitant of strangulation, and if we persist too long in our efforts we may succeed in forcing

the water through tissues weakened by the effects of decay into the peritoneal cavity, and thus rob our patient of the chance that nature itself affords him.

CAMPBELLSVILLE, KY.

Correspondence.

REPLY TO DR. W. TALBOT OWEN, IN THE KENTUCKY MEDICAL SOCIETY TRANSACTIONS.

To the Editors of the Louisville Medical News:

A few days past, on reaching the principal city of the United States on the north Pacific coast, I found a considerable mass of mail-matter awaiting my arrival, no other of which was more gladly welcomed than the copy of the Transactions of the Kentucky State Medical Society for 1877. The volume reflects the brightest credit upon the publication committee, and it was quite a solace to me on a long and tedious journey into the interior.

On an examination of the beautiful volume I found that Dr. Talbot Owen, of Louisville, had indulged the society with a criticism on one of my publications. Of course that article was read attentively, and, I must add, with pleasure. I confess, however, that the opening paragraph rather startled me—two radical errors so forcibly charged against me. It was some consolation, however, that there were but two. Pettenkofer thought some time since that he had found at least a thousand in my work, but that was before I had imprisoned him at Laufen; therefore I was thankful to Dr. Talbot Owen for letting me off so easily.

My critic writes that I have been guilty of two errors which are both positive and negative in their fallacy, and he offers in a most self-sacrificing spirit that if he does not show them to be radical he will abandon all claims to a comprehension of medical philosophy. My errors are, first, that I claim that cholera is a portable disease; secondly, that I deny that malaria is a cause of cholera. I gladly plead guilty to both counts, for I had greatly feared that in some way or other I had been an exponent of false doctrines, and that Dr. Talbot Owen had found me out.

Yes, I am guilty. I do teach that cholera is cholera, simply cholera; that no matter how highly charged an atmosphere may be with malaria in any of its forms, epidemic cholera can not exist among the individuals who breathe that atmosphere before the specific poison of cholera has been imported; and then that an epidemic outbreak only occurs when the specific poison has been deposited in a suitable nidus, in which it may germinate, and from which it may yield a crop of—what? Malaria? No. Cholera? Yes. Dr. Talbot Owen and myself, visiting in a highly-malarial locality, can not smoke a Havana cigar until after that necessity has been imported for us. After we have the article in our hand we can not use it until we have invoked a local agency in the shape of a match or a coal of fire. So is it with cholera. Neither that distinguished physician nor myself could have an attack of that disease in that particular locality until it (the specific poison) had been brought to us and we had invoked the local agency of heat and moisture. I teach this strange doctrine because I believe it to be true, because the accumulated evidence of the closest and most careful observers proves it, and because it is proved by facts as numerous as sands on the sea.

After Dr. Talbot Owen delivered himself in 1866 of that paper to which he so frequently calls attention, and which he tells us he based upon the "great work of investigation of the British Government published in 1852," he seems to have converted himself into a cholera Rip Van Winkle, and now suddenly awake, but utterly oblivious to all that has transpired during the last twenty-seven years, fires that old rusty gun at me. For him Simon, Parkes Sutton, Burdon-Sanderson, and Netten Radcliffe—all officials of the British Government—have labored in vain. To him the works of Murray, Mac-

namara, De Renzy, Pringle, and Cornish, in India, of Von Gietl, Thiersch, Routh, Pelekan, Prord, Tholozan, Fauvel, Obermeir, Nedswetzky, Frank, and a mighty army of other observers in Europe and Asia—nay, even the great Pettenkofer—are unknown. That delightful book of Christie has not come to his hands; therefore it is not to be wondered at that Dr. Talbot Owen still thinks that outbreaks of epidemic cholera have their origin in malaria, and that it is impossible to carry the disease from one locality to another.

In closing his paper Dr. Owen expresses his grief and astonishment at my crime. He must permit me to express my mortification at my failure. For the past five years, in season and out of season, I have been in print before his eyes. I have gone over the line of facts so often that I fondly thought I had done somewhat toward establishing the truth; but now I find that either Dr. Owen has read nothing I have written, or else that I have expressed myself so stupidly that my ideas made no impression on him. I really can not go over the argument again for him. My facts are all in print, accessible to him. He has only to read, reflect, and be convinced.

I object to ridicule and I desire to ridicule no one. I hereby express my admiration for men who, after close and careful study, are profoundly convinced as to the truth of their conclusions. Such men are fair and honest opponents. They can deliver and receive hard blows. But I do charge that men who, in their zeal to attack those whom they call "contagionists, infectionists, portabilists, *et id omne genus*," ignorantly resort to ridicule of the only practical theory which now exists, by means of which communities may be protected from the invasion of epidemic cholera, pronounce the doom of those who hearken to their voice. By such conduct they expose not only individuals but communities, in times of danger, to the disease.

One sentence of Dr. Owen's paper is so applicable that I can not but reproduce it: "It is imperative that the medical philosopher should demonstrate all propositions given for the guidance of those placed over the lives of the people; for the physician, as much as any other, has the greatest charge; and wo be to him who flippantly tampers with that charge, or who, from a crude digest, gives that which misleads the community."

ELI M'CLELLAN.

Miscellany.

SCHIFF ON THE FUNCTIONS OF THE SPLEEN.—Excision of the spleen, according to this physiologist, has no prolonged influence on the absolute or relative quantity of the white or red globules of the blood. In the early periods after the operation a considerable increase of the white corpuscles is to be seen, with or without a diminution of the red. These changes do not result from the absence of the spleen, but simply from the operative procedures which the removal of the organ necessitates, and those phenomena will be about the same even if the incisions are made and the spleen be not removed. After extirpation has taken place, there is rarely inflammation of the lymphatics or increase in volume of other glands. The so-called supplementary glands are not found, even if the animals be allowed to live a year and a half, and even if the operation has been done during the first weeks of life. The inflammation of the mesenteric glands, met with in very rare cases in animals that have been deprived of their spleens, appears to have been due to a partial and prolonged peritonitis which sometimes follows the operation.

The spleen appears to increase in volume from the fourth to the seventh hour of gastric digestion. During the digestion, or rather during gastric absorption, the spleen prepares the ferment which, entering with the blood into the tissue of the pancreas, forms in this latter a special substance into pancreatopepsine or trypsine, a material suited to digest albuminoid bodies. After extirpation of the

spleen the pancreatic juice loses its digestive power on the albuminoid bodies, though it preserves its other digestive properties. The duodenal digestion of albuminoid substances is no longer marked by its energy and rapidity; it becomes weak just as in other parts of the small intestine. After removing the spleen, the matter destined to form the pancreato-pepsine accumulates in large quantity in the pancreas, and can still be transformed into pancreato-pepsine by those chemical influences which after death attend the commencement of putrefaction. After the nerves of the spleen have been destroyed the organ remains flaccid; it no longer becomes tumid, but atrophies, just like the erectile tissues when the vascular nerves have been paralyzed.—*La France Médicale*, 79, 1877.

A Needle found in the Brain.—At a meeting of the Pathological Society of Philadelphia (Medical Times) Dr. H. L. Hodge reported that upon removing the calvaria of a subject in the anatomical rooms of the University of Pennsylvania, a sewing-needle of medium size was found lying on the right hemisphere of the brain, nearly parallel to the superior longitudinal sinus, about one inch distant from it, and about an inch and a half behind the fronto-parietal suture. The point and the eye of the needle were both unbroken. The point was directed backward. The needle was much oxidized, and attached to the arachnoid surface of the dura mater by old bands of lymph near the larger extremity of the needle. No history of the cadaver, an adult male, could be obtained. The needle appears to have given rise to no important changes, and had no apparent connection with the cause of death. The man seems to have died of phthisis.

It is a matter of interest how the needle reached the position. Other methods might be suggested, but it is most probable that it entered the anterior fontanelle during infancy, and thus passed to the place where it was found.

Dr. Richard A. Cleemann said that he had made use of the fact that a needle, after being imbedded in tissue for a certain length of time, becomes tarnished. He had extracted a fragment of needle, and was anxious to determine whether it was all that entered the foot. The broken end was tarnished. He fractured the needle; and, observing that the fractured ends presented the usual steel-like luster, he concluded that he had removed the whole fragment. Had he broken it off, the fractured end of the removed portion would have been bright.—*Pacific Med. and Surg. Jour.*

A Cause of Infant Mortality.—We lately recorded a case where we believed the death of an infant had resulted from careless and injudicious feeding. Some correspondence having followed in the Journal in connection with the subject of feeding infants, we subjoin a few remarks on the general diets suitable for infants. If an infant under seven months be deprived of its mother's milk, hand-feeding of some kind must be resorted to, unless the services of a wet-nurse can be obtained. The most convenient method of administering food in such a case is by means of a feeding-bottle. The character and mode of preparation of the food have now to be considered. Up to the age of six months little or nothing should be given besides milk, fresh, warmed, sweetened, and diluted with one-third or fourth part of water or lime-water, the latter being preferable when there is any tendency to offensive and loose motions or vomiting; three or four ounces of the food being given every three hours or less, according to circumstances. But in all cases the times of feeding should be fixed and rigidly adhered to. In some cases baked flour, rusks, etc., may be given with advantage under six months; but with most children such a diet is but ill borne, causing gastro-intestinal irritation, as evidenced by vomiting, with loose and offensive motions. After the age of six months, and toward the time when teething may be expected to commence, other food may be added to the diet, such as one tablespoonful of baked flour, either home-prepared or in

the form of Ridge's food. The heating renders the farinaceous food partially soluble. Fatty food may be given with advantage once a day, in the form of yolk of egg beaten up with milk, or mutton-suet melted in milk by gentle simmering, two ounces of suet being used to thicken one pint of milk. The mixture, being sweetened and strained, can be taken through a feeding-bottle. Important as is the subject of infants' diets, we must not dwell longer on the subject, but refer our inquirers to the suggestions given in Dr. West's work on the Diseases of Infancy, and in Dr. Eustace Smith's Clinical Studies of Disease in Children, and in works by other authors. Referring once more to the case on which we commented, it appears that death resulted from injudicious feeding, the child being as truly starved to death as if all food had been withheld. We are at the same time well aware that some children, naturally of a strong digestion, may live and thrive on almost any food.—*Brit. Med. Jour.*

Dr. Fowler, in the November number of the Sanitarian, in a paper on the Faulty Menu of Boarding-schools, writes: "Said a wise physician to me a few months since, 'I don't know what to do with my daughters. Thus far they have been taught at home, but now they are old enough to complete their education away from their parents; and I know of no boarding-school, city or country, through which they can pass without coming out invalids. Educational institutions are faulty in a hygienic point of view, one great trouble being here'—tapping his stomach. Having heard the same opinion expressed before by several eminent physicians, and entertaining nearly the same sentiment myself, I was led to investigate still further upon the subject, and have come to the conclusion that this deplorable state of affairs is wholly unnecessary, and therefore most blameworthy." And again: "Of course it would be unjust for me to state that *all* educational institutions furnish innutritious and insufficient food; but this I will say, that all boarding-schools with which I have made myself acquainted are dietetically faulty, and that all students from other schools of whom I have inquired give me the same testimony. They are so nearly alike that one is typical of all."

The Philadelphia Medical Times for September 29, 1877, states that at the Centennial Exhibition there was an enormous percentage of sickness among the Japanese exhibitors, due partly to the change in their mode of life and climatic surroundings, and largely to their mode of living. Their dwellings were so slightly built as to afford little protection from cold, and in cold weather their rooms were unventilated. Eighteen per cent of them suffered from typhoid fever. At the Centennial Hospital 6,463 cases of disease and injury were treated. Although there were acres of moving machinery, and the steam railway carried around the grounds 3,784,142 passengers, there was no serious accident. There were only four deaths on the grounds, no births, and but one abortion. "These facts furnish strong proof of the admirable management of the Centennial authorities, of the modesty which keeps the American woman secluded during the later months of pregnancy, and of her retentiveness during the earlier days of her sorrow."

The great "celluloid suit" between the Goodyear Dental Vulcanite Company and Charles G. Davis and other dentists has at last been decided in favor of the dentists. The Dental Cosmos states that similar suits were pending against fifteen hundred other dentists, but this decision settles the whole question. We congratulate our dental friends.

Between eight and ten thousand artificial eyes are sold annually in the United States. The average cost of an eye is $10, and the color most in demand is what is known as "Irish blue." Christian Hohn, a New York German, makes glass eyes for horses that will defy detection except by great experts.

Selections.

Poisoning by Santonin.—Prof. Binz, of Bonn, has just recorded an interesting and important case of poisoning by santonin, which came under his observation two years ago. The patient was a delicate child twenty-five months old, who about six A. M. took two lozenges, each containing .025 milligramme of this drug. At four P. M., without any previous warning, sudden clonic convulsive spasms set in, commencing at the left angle of the mouth, and thence spreading over the left side of the face. These were succeeded by similar spasms in the right arm, beginning in the fingers. A quarter of an hour after, a tonic spasm invaded the left side of the face and left arm, then rapidly disappeared, leaving a fibrillary twitching of the muscles of the left angle of the mouth and left eyelid, which soon afterward ceased quite suddenly. Two more convulsive attacks occurred on the same evening, and in one the respiratory movements threatened to come to a standstill, although the heart was beating quite strongly and the pulse was normal. Two or three similar fits occurred daily at intervals for the next four or five days, after which the child was as well as before. During this time the urine was of the peculiar greenish-yellow color which has been noticed after the exhibition of this drug. Prof. Binz suggests that the localization of the convulsive spasms on the left side of the face was due to its being smaller and less developed than the right side, thus making it "a place of less resistance." As santonin is not included among poisons in works on forensic medicine, the best treatment of such a case is a question of much importance; and to decide this, as well as its physiological action, some experimental investigations were made on cats, rabbits, and frogs. Prof. Binz injected weak solutions of santonate of soda in water, and found that the mesocephalon was first attacked, and that the convulsions principally affected the muscles supplied by the third, fourth, fifth, sixth, and seventh cranial nerves. The spinal cord and the general muscular system were afterward involved. There was no disturbance of the heart's action or of the blood pressure. Numerous observers have already described the peculiar effect of santonin on vision, causing objects to appear yellow and green. Nitrate of amyl, morphia, and artificial respiration were powerless against the spasms, although the latter must be employed to ward off asphyxia from paralysis of the diaphragm. Ether and chloroform arrested the attacks, if given at their very commencement, and always lessened their severity and duration. Hypodermic injections of chloral hydrate had much the same effect, so that we have in these agents very powerful physiological antidotes against the action of the poison while we wait for its elimination.

The extremely prevalent use of santonin as a vermicide by the profession, and its common sale in worm powders and worm lozenges by every druggist, made the above case and observations of more than ordinary significance. Its occasional toxic action on the cerebrum has been noticed before, and referred to by several writers; but that it could induce such severe symptoms was not generally known; and it now behooves us to give the drug with more precision and to watch its effects with more care than has been the usual custom. The quantity taken in this instance—viz. a mere fraction of a grain—seems very small to have produced such a serious result; but as the child has never suffered from any convulsive symptom before or since, and as the urine was so evidently colored by the drug, we must either suppose that there was an unusual susceptibility to its action or more probably that by some mistake the dose was much larger than was inferred from the lozenges that were analyzed. The effects on the lower animals prove its toxic power, and leave no doubt as to the necessity of our using the remedy much more sparingly than we do at present; and we are at least bound to take some trouble to ascertain the probable presence of worms in a child's alimentary canal before administering a medicine which may occasionally even act as a poison.—*London Lancet.*

Ophthalmia Neonatorum.—This is an inflammation of the eyes which should be, and probably is, of the deepest interest to the general practitioner. It requires no very great stretching of the imagination to fancy, if one has never seen, the anxiety of the mother when she sees the quantity of discharge which usually escapes from between the eyelids. Purulent ophthalmia is a serious affair in adults, and how much more so does it not seem in the delicate new-born baby. Yet it is a disease easily controlled by proper treatment, and not necessarily fatal to vision. It usually shows itself about the third or fourth day after birth, which fact is pretty fair proof that it is provoked by inoculation. It may, however, and frequently does ensue from exposure to bright light, from the contact of soap and water while washing the infant, from want of cleanliness, and from cold air.

At the commencement of the disease the edges of the lids are slightly agglutinated, the lids are a trifle swollen, their borders red, and there is a slight catarrhal discharge. These symptoms are sometimes stopped at this point, causing simply a catarrhal ophthalmia; but it is necessary to remember that such symptoms are the usual precursors of the purulent form, and to watch them closely. The disease usually attacks one eye first, and very soon after the other becomes affected. The conjunctiva becomes swollen, and on opening the lid there escapes a citrine-like liquid containing flakes of mucus and pus. Unless

modified by proper treatment, the swelling of the lids increases, as does also the purulent secretion, and too frequently the cornea becomes affected, and either vision is lost or unsightly white spots are left as the result, producing more or less impairment of sight.

In every case of purulent inflammation of the conjunctiva it is necessary to pay particular attention to the state of the cornea. If the swelling of the conjunctiva and the lids renders it impossible to separate the lids with the fingers sufficiently to examine the cornea, the lid-elevators must be used. The treatment of ophthalmia neonatorum must be guided by the character of the secretion. If the secretion is of actual catarrhal type, cleansing with warm milk and the use of a mild stimulating lotion, such as sulphate of zinc (one to two grains) and water (one ounce), every six hours, will usually cure the trouble in a few days. If, however, we have to deal with a purely purulent type of the disease, more energetic treatment is called for. The edges of the lids must be kept anointed to prevent the retention of the discharge in the conjunctival sac by the agglutination of the edges of the lids, and the lids everted, cleansed of the secretion, and, according to the gravity of the case, either cauterized with the mitigated stick of argenti nitras, or a solution of the nitrate of silver (five grains to one ounce), used morning and evening. I do not approve of washing the eyes every fifteen minutes or every hour, as I believe the irritation is increased thereby; and if the gluing together of the lids is prevented, as it certainly will be by properly anointing their edges, the secretion will escape, and can be gently wiped away externally. I have known the disease to be prevented from getting well by the over-anxiety to keep the conjunctiva cleansed of the discharge. It is usually a number of days, even when neglected, before the ocular conjunctiva or cornea becomes affected, and with proper care and treatment they seldom participate in the inflammation. I do not hesitate to say that an eye never should be lost from ophthalmia neonatorum, though I am sorry to say many are.

If the cornea is affected, the cauterizations or applications of the solution of nitrate of silver (five grains to one ounce) should be continued to the everted lids, care being taken to wash off the excess of silver, and a solution of sulph. atropia (four grains to one ounce) instilled every two or four hours. Sometimes it is necessary, particularly if the corneal trouble is spreading, to make paracentesis of the anterior chamber; or if a prolapse of the iris has taken place, to snip it off with the scissors. Complications of the above character, however, only happen from neglect.

The recent care of several cases of this disease, and having been consulted a short time since about a hopeless case which had been treated by a notorious quack of this city, prompted the writing of the present notes, which he hopes will be received by the Journal in the spirit in which they are written.—*Eugene Smith, M. D., in Detroit Medical Journal.*

Case of Popliteal Aneurism Cured by the Application of Esmarch's Bandage for Fifty Minutes.—Michael M., aged thirty-six, a grocer, recommended by Dr. White, Tobbercurry County, Sligo, to place himself under Mr. Tyrrell's care, was admitted into the hospital on the 20th of April, with an aneurism of the left popliteal artery. He stated that up to the preceding March he had enjoyed good health, except for a short time in September, 1872, when he had a slight attack of rheumatism. He had been in America for a year, and while there was very intemperate.

On the 10th of March, when kneeling, he was seized with a most violent stinging pain in the back of his left knee. He stood up at once, and the pain ceased until he went to bed, when it returned with increased violence. The pain continued during the night, to disappear again in the morning. On examination he noticed a small, hardish lump in his left ham, but did not feel it throbbing. For about a month after this he continued quite well, except for a dull pain in the left ham which attacked him on and off.

On the 8th of April, as he was returning home from a long walk, he was again attacked with a most violent racking pain, and the lump, which had up to this date been slowly increasing in size, now increased rapidly and commenced to throb. He painted it with tincture of iodine, and rested for some days; but, not finding himself getting better, he sent for Dr. White. That gentleman, at once recognizing the nature of the disease, sent him to Mr. Tyrrell. There was no history of syphilis.

On examination, a large pulsating tumor was felt and seen in the left popliteal space, measuring five inches from above downward, and five inches and a half from side to side. It was soft, and a slight bruit was audible with the stethoscope over it. The superficial veins of the leg were swollen, and the whole limb was slightly edematous. Neither the anterior nor the posterior tibial arteries could be felt on the left side, but were palpable on the right. The circumference on the left knee immediately above the patella was fourteen inches, on the right side twelve inches and a half; half an inch below the patella on left side fifteen inches, on the right side eleven inches. The tumor was principally in the inferior portion of the popliteal space. The heart-sounds were normal. He required large doses of morphia to give ease from the violent pains, shooting from the toes to the hip, which came on at night. He was ordered to remain

in bed, and to take immediately a full saline cathartic draught. He was put on a restricted meat diet, got very little to drink, and was allowed ice and oranges to allay his thirst. He had a subcutaneous injection of morphia at night.

On the 24th of April Mr. Tyrrell applied Es. march's bandage. Commencing at the toes, the bandage was wound tightly round the limb as high as the tumor, then lightly over it, and again up the thigh. The elastic tourniquet was also put on. The patient complained of considerable pain while the bandage remained on, but it was not so severe as to call for the use of an anæsthetic. Mr. Tyrrell allowed the bandage to remain on fifty minutes. On its removal all pain ceased. The tumor had sensibly diminished in size, was quite hard and globular, and had a very slight pulsation. Digital compression was kept up for two hours. When examined at the expiration of that time, the tumor was found absolutely pulseless. As a matter of precaution a compressor was applied over the femoral artery at the pubes, and the patient was directed to keep it moderately tight. After the elastic bandage was taken off, the leg and thigh were enveloped in a flannel bandage and elevated on pillows.

On the 25th April, the patient, having slept all night, said he was free from pain, but complained of numbness in the toes and foot. The articular arteries around the knee could be both seen and felt to pulsate. In the evening pulsation was felt in the anterior tibial on the dorsum of the foot. The tumor felt very solid; no trace of pulsation. Next day the patient was better in every respect; the edema of the leg was nearly gone, and sensation was normal in the foot. He slept well, and the tumor was apparently smaller. On May 1st the patient got up and dressed himself, and was anxious to be allowed to walk about, but Mr. Tyrrell would not allow this, as he thought it more prudent to rest the leg for some time longer. Ordered a pair of crutches. On May 2d the patient went home.

In some clinical remarks on the case Mr. Tyrrell said he regretted that he did not measure the tumor when the Esmarch's bandage was being applied, to see whether, when the blood was forced out of the leg, it caused any increase in the size and tension of the aneurism.—*Mr. Henry Lengtaigne, in London Lancet.*

Treatment of Puerperal Eclampsia.—In a recent address on Puerperal Eclampsia, read before the Christian County Medical Society by Dr. J. P. Thomas, of Pembroke, Ky., a copy of which has just reached us, the author in his remarks on the treatment of this disease says:

"They are not frequent cases in which chloral would answer a better purpose than chloroform, cases in which large doses of the bromides may answer, but for the large majority of cases I would rely upon chloroform as the grand successor of the lancet.

"I have seen one case in which I believe quinine cured the patient, and I believe there are cases in which it is the most reliable remedy. To treat eclampsia, I should desire to be within call of the following therapeutic agents: (1) chloroform, (2) the lancet, (3) veratrum viride, (4) hypodermic syringe, (5) chloral, (6) opium, and (7) the bromides. Although the lancet is placed second in the list, it might not be used once in ten cases. I always administer a full dose of calomel (from ten to twenty grains) for its cholagogue and cathartic effects. I believe that chloroform, after the emptying of the womb of its entire contents, will meet more of the indications than any other agent; but the prompt evacuation of the contents of the uterus should be accomplished as soon as possible, for the reason that it is the cause which keeps up the excitation by distension and compression of the sentient uterine nerves.

"But if the brain was threatened by effusion or too much engorgement after the free use of chloroform, which no doubt in plethoric women often happens as the result of reflected irritation to the cerebral circulation, I should not hesitate to use the lancet boldly in preference to other temporizing means; but in many cases I have no doubt but that the subcutaneous injection of veratrum viride would control the circulation sufficiently to protect the brain from undue blood-pressure. It has been used frequently—more especially hypodermically—with reported success. I have had no experience with the remedy in this disease, and would fear abscess from its subcutaneous administration."

Repeated Cold Baths in Typhoid Fever.—Professor Peter, in an address before the Societe Medicale des Hospitaux, on the subject of cold baths as a system of treatment in typhoid fever, summed up his opinion of them in the following resume:

1. The physician in practice does not consider a typhoid unity; but he is engaged with typhoid patients, each offering daily diverse, complex, and changeable indications, according to the lesions and symptoms.

2. Still less should he consider only one morbid element the excess of heat.

3. All systematic treatment directed toward a single symptom is absolutely illogical and insufficient.

4. The good results of the treatment by cold, when it produces any, are not due to the lowering of the temperature, when the lowered temperature can be maintained, but to a profound perturbation of the nervous system. The loss of heat is therefore a very indirect result of the treatment by cold baths, and is

due to a dynamic modification of the nervous, cutaneous, and vascular systems.

5. Now this modification can be obtained by other hydro-therapeutic means less dangerous than cold baths.

6. There are cases in which even cold sponging, imprudently employed or frequently repeated, is not without danger. A nervous shock, however slight, may become a dangerous one for a system enfeebled by typhoid fever.

7. When an accident does occur as a result of cold baths in typhoid, the dangers are grave and out of all proportion to the expected benefit. Accordingly I do not see the indication for cold baths, either to reduce the temperature or to produce a general modification at the system; and, considering the terrible accidents they can bring about, I see only contra-indications.

8. In conditions every way comparable—same hospital, same months, same epidemic, and an equal number of patients—the treatment of typhoid patients by cold baths has given in Paris greater mortuary statistics than a rational treatment inspired by the indications.

9. The best system in therapeutics, and particularly in the treatment of typhoid patients—I intentionally say typhoid patients, and not typhoid fever—is still, and always will be, to have no system whatever.—*L'Union Medical.—Detroit Medical Journal.*

Pimply-face Acne.—In a recent lecture by Mr. Jonathan Hutchison, an eminent London surgeon, in which he discusses the whole subject of this unsightly affection, its causes and appearances, he says in regard to the best treatment as follows:

"When the face is covered with pimples, some of which are red, some contain pus, and others show only black points in their centers—all kinds being present, and all show in progress—it is commonly agreed to call the condition Acne.

"The rules for the constitutional treatment of acne patients follow easily from what we have said. If the patient be young, he should be made to use a cold bath every morning, to take plenty of exercise, to live liberally as regards meat diet, with a fair allowance of stimulants; and he should be cautioned or encouraged, as the case may be, in reference to sexual matters. As to medicines, a long course of small doses of arsenic will often be of great use. If constipation be present, the habitual use of a chalybeate aperient should be prescribed. You may do all this, however, most assiduously and gain nothing whatever, if you neglect local measures; whilst with the latter only, and without any change in the patient's habits, you may often get an acne eruption so nearly well that he will regard it gratefully as a cure. The chief local measure consists in destroying, by means of a caustic, the inflamed follicles. With a fine-pointed glass brush, or a bit of soft wood cut to a point, you touch the inflamed spots from day to day. Take care not to apply too much. In the left hand should be a roll of blotting-paper with which to absorb the fluid if it has been deposited too abundantly. The best fluid to use is the acid nitrate of mercury. It will usually be necessary to repeat the touching once a week for a month or two, carefully seeking out every fresh spot. After that the patient should still see you once a month, in order that the cure may be kept up. The acid thus used does not leave larger scars than the spots would themselves do.

"In acne rosacea the use of the caustic will again serve an excellent purpose. You may not only touch the spots themselves, but also pencil out the stray vessels which add so much to the patient's disfigurement. He, or more usually she, will gladly exchange a few slight and scarcely perceptible scars for the angry and very suspicious-looking redness of face which the disease causes."—*Medical Times and Gazette.*

The Treatment of Tape-worm.—Prof. Mosler has been advocating a system of treating tape-worm which, according to a Swiss medical journal, has been attended with remarkable success. Its chief characteristic is the injection of large quantities of warm water into the colon after the administration of the anthelmintic. The diet is first regulated, food being given which is supposed to be distasteful to the tape-worm—bilberry tea, herrings, sour cucumber, salted meats. The intestine having been, as far as possible, emptied by laxatives, a dose of the extract of pomegranate bark is administered, prepared from the fresh bark, and then a large quantity of warm water is injected into the rectum. The theory is that the worm, previously brought down into the colon, is prevented by the water from attaching itself to the wall, and is brought away by the liquid on its escape. It is asserted that in every case in which this treatment was adopted the head of the worm was removed.—*London Lancet.*

Treatment of Distemper.—It will be interesting to lovers of the canine species to hear of a simple remedy for distemper. At the quarterly meeting of the Scottish Metropolitan Veterinary Medical Society Mr. Baird mentioned the case of a collie dog in the last stage of the disease, and which its owner had determined to destroy. Shortly after being treated with doses of strong coffee and a little sweet milk, the animal, however, so far recovered as to be able to stand and walk. The chairman of the meeting said the case seemed almost unique.—*London Lancet.*